

IN THE CLAIMS

1. (Previously presented) A process for producing an absorbent composite comprising contacting a solid supporting material with a mixture comprising at least one polymeric material and at least one crosslinker and curing the mixture on the supporting material, wherein the polymeric material comprises a carboxyl-rich polymer, not less than 50 mol% of the polymer being polymerized from unsaturated carboxylic acid monomers, the monomers of the carboxyl-rich polymer being wholly or partly neutralized with a base before or during the polymerization, and the mixture is an emulsion, wherein the emulsion comprises an organic solvent.

2. (Previously presented) The process of claim 1 wherein the supporting material comprises fibers, tapes, or a mixture thereof.

3. (Previously presented) The process of claim 1 wherein the supporting material comprises wovens, nonwovens, or a mixture thereof.

4. (Previously presented) The process of claim 2 wherein the fibers are filaments, staple fibers, or a mixture thereof.

5. (Previously presented) The process of claim 2 wherein the fibers are synthetic fibers.

6. (Cancelled)

7. (Currently amended) The process of claim 1 wherein the polymeric material comprises a ~~carboxylic rich~~ carboxyl-rich polymer based on a copolymer of vinylically or allylically unsaturated carboxylic acids, or both, or their derivatives, or mixtures thereof.

8. (Previously presented) The process of claim 1 wherein the polymeric material comprises a polymer based on a copolymer of acrylic acid, an ester or an amide of acrylic acid, methacrylic acid, and mixtures thereof.

9. (Previously presented) The process of claim 8 wherein the polymeric material further comprises a granular superabsorbent polymer based on partially neutralized crosslinked polyacrylic acid.

10. (Previously presented) The process of claim 1 utilizing a covalent crosslinking agent.

11. (Previously presented) The process of claim 10 wherein the covalent crosslinking agent comprises a diepoxide.

12. (Previously presented) The process of claim 1 wherein the curing is effected in a range from 100 to 200°C.

13. (Previously presented) The process of claim 1 wherein the supporting material is coated, impregnated, padded, foamed, or sprayed with at least one polymeric material and subsequently cured.

14. (Previously presented) An absorbent composite prepared by the process of claim 1 wherein the polymeric material is prepared by an emulsion polymerization.

15. (Previously presented) A close-out comprising at least one absorbent composite of claim 1 and at least one sealing membrane comprising a plastic.

16. (Previously presented) The close-out of claim 15 wherein the absorbent composite is disposed between two sealing membranes comprising a plastic.

17. (Cancelled)

18. (Cancelled)

19. (Previously presented) A sealing material for a cable sheath comprising an absorbent composite of claim 14.

20. (Previously presented) The sealing material of claim 19 to enhance water retention in agriculture and horticulture, to regulate humidity in rooms and containers, and for moisture regulation in sitting or lying furniture.

21. (Previously presented) The process of claim 1 wherein the organic solvent comprises a mineral oil.

22. (New) The process of claim 1 wherein the at least one crosslinker is selected from the group consisting of ethylene glycol diglycidyl ether, diethylene glycol diglycidyl ether, polyethylene glycol diglycidyl ether, propylene glycol diglycidyl ether, dipropylene glycol diglycidyl ether, polypropylene glycol diglycidyl ether, glycerol diglycidyl ether, polyglycerol diglycidyl ether, epichlorohydrin, ethylenediamine, ethylene glycol, diethylene glycol, triethylene glycol, polyethylene glycol, propylene glycol, dipropylene glycol, tripropylene glycol, polypropylene glycol, butylene glycol, 1,3-propanediol, 1,4-butanediol, bisphenol A, glycerol, trimethylolpropane, pentaerythritol, sorbitol, diethanolamine, triethanolamine, ethylenediamine, ethylene carbonate, propylene carbonate, 2-oxazolidinone, N-hydroxyethyl-2-oxazolidinone, N-2-hydroxyethyl-2,3-morpholinedione, N-methyl-2,3-morpholinedione, N-ethyl-2,3-morpholinedione and/or N-tert-butyl-2,3-morpholinedione, 2-oxotetrahydro-1,3-oxazine, an N-acyl-2-oxazolidone, N-acetyl-2-oxazolidone, a bicyclic amide acetal, 5-methyl-1-aza-4,6-dioxabicyclo[3.3.0]octane, 1-aza-4,6-dioxabicyclo[3.3.0]octane, 5-isopropyl-1-aza-4,6-dioxabicyclo[3.3.0]octane, and/or bis- and poly-2-oxazolidinone.

23. (New) The process of claim 1 wherein the organic solvent is selected from the group consisting of an aliphatic hydrocarbon, a cycloaliphatic hydrocarbon, an aromatic hydrocarbon, a halogenated hydrocarbon, a petroleum ether, a mineral oil, and a natural oil.

24. (New) The process of claim 1 wherein the at least one crosslinker is used in an amount of about 0.5% to about 2%, by weight, based on the polymeric material.